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10/537,319

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Chang Seo Park

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EXAMINER

HALVORSON, MARK

ART UNIT

PAPER NUMBER

1642

MAIL DATE

DELIVERY MODE

06/14/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/537,319

Applicant(s)

PARK ET AL.

Examiner

Mark Halvorson

Art Unit

1642

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 March 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Claims 1-6 are pending.

Claims 1 and 6 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. The claims under examination are drawn to a kit comprising tetraacetylphytosphingosine. Claims 1 and 6 are drawn to methods of treatment using tetraacetylphytosphingosine and are thus drawn to a different invention than the original claims under examination.

Claims 2-5 are under currently under examination.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### **Priority**

Applicants claim for a priority date of 12/2/2002 on based on Korean Patent Application 10-2002-0076022 is accepted in view of the submission of a certified copy of Korean Patent Application 10-2002-0076022 and statement declaring that PCT/KR03/02622 is an exact translation of Korean Patent Application 10-2002-0076022.

### **Objections to Specification withdrawn**

The objections to the drawings is withdrawn in view of Applicant's submission of replacement drawings.

### ***35 USC § 102(a) rejections withdrawn***

The rejection of claim 2 under 35 U.S.C. 102(a) as being anticipated by Kim et al is withdrawn in view of Applicants priority date of 12/2/2002 based on Korean Patent Application 10-2002-0076022.

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**35-~~USC~~ § 102(b) rejections maintained**

The rejection of claim 2 under 35 U.S.C. 102(b) as being anticipated by Jackson et al is maintained.

Applicants argue that Jackson et al does not teach or suggest that tetraacetylphytosphingosine can be used to inhibit angiogenesis or treat cancer.

Applicant's arguments have been fully considered but they are not persuasive. In response to applicant's argument that Jackson et al does not teach that tetraacetylphytosphingosine can be used to inhibit angiogenesis or treat cancer, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In this case Jackson et al teach tetraacetylphytosphingosine the compound recited in claim 2.

**35 USC § 103(a) rejections withdrawn**

The rejection of claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al in view of Korea Atomic Energy Research Institute is withdrawn in view of Applicants priority date of 12/2/2002 based on Korean Patent Application 10-2002-0076022.

**NEW REJECTIONS:**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson et al (issued Nov 26, 1996, of record) in view of Liotta et al (US Patent No: 6,610,835, issued Aug 26, 2003, filing date Feb 12, 1999).

Claims 3-5 are drawn to a kit for treating cancer comprising tetraacetylphytosphingosine, a spingolipid derivative, such as sphingosine, as an anti-cancer drug, and an irradiator.

Jackson et al describe a composition comprising tetraacetylphytosphingosine.

Jackson et al does not disclose a spingolipid derivative and an irradiator.

Liotta et al disclose that sphingosine can downregulate Bcl-2 levels which further sensitizes cells to radiaton. (column 45, lines 8-8).

One of ordinary skill in the art would have been motivated to apply Liotta et al's composition comprising sphingosine and irradiator with Jackson et al's composition comprising tetraacetylphytosphingosine because Jackson et al disclose that a ceramide pathway intermediate, which includes tetraacetylphytosphingosine, can be combined with other ceramides and other glycosphingolipids. Note column 11 lines 50-57. It would have been prima facie obvious to combine Jackson et al's composition comprising tetraacetylphytosphingosine with Liotta et al's composition comprising N-acetylphytosphingosine.

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**Summary**

Claims 2-5 stand rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Halvorson, PhD whose telephone number is (571) 272-6539. The examiner can normally be reached on Monday through Friday from 8:30am to 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shanon Foley, can be reached at (571) 272-0898. The fax phone number for this Art Unit is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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